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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/692,833

10/23/2003

J. Rodney Walton

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23696 7590 11/13/2009
QUALCOMM INCORPORATED
5775 MOREHOUSE DR.
SAN DIEGO, CA 92121

EXAMINER

NGUYEN, THUAN T

ART UNIT

PAPER NUMBER

2618

NOTIFICATION DATE

DELIVERY MODE

11/13/2009

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

us-docketing@qualcomm.com
kascanla@qualcomm.com
nanm@qualcomm.com

Office Action Summary	Application No. 10/692,833	Applicant(s) WALTON ET AL.	
	Examiner THUAN T. NGUYEN	Art Unit 2618	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on RCE on 11/02/2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 19-55 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 19-55 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after allowance or after an Office action under *Ex Parte Quayle*, 25 USPQ 74, 453 O.G. 213 (Comm'r Pat. 1935). Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, prosecution in this application has been reopened pursuant to 37 CFR 1.114.

Applicant's submission filed on 11/02/2009 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 19-23 with at least claims 19, 28, 31-32, 41 are rejected under 35 U.S.C. 102(b) as being anticipated by Servais et al (6,141,388).

Regarding claim 28, Servais teaches method of detecting data transmissions in a wireless multiple-access communication system, comprising: determining a metric for a data transmission hypothesized to have been received (col. 9, lines 1-20, voice channel decode metric); determining a threshold for the hypothesized data transmission based on samples received for the hypothesized data transmission (col. 9, lines 1-20, FACCH decode metric); and comparing the

Art Unit: 2618

metric against the threshold to provide an output indicating whether or not the data transmission is deemed to have been received (col. 9, lines 18-20, compare voice and FACCH metrics and better metric selected for generating the received signal quality estimate).

Claims 19, 31-32 have similar claimed limitations as claim 28. Therefore, the rejection of claim 28 is also applied to claims 19, 31-32.

Regarding claim 41, Servais teaches method of detecting data transmissions in a wireless multiple-access communication system, comprising: determining a metric for a data transmission hypothesized to have been received (col. 9, lines 1-20, voice channel decode metric); determining a threshold for the hypothesized data transmission based on samples received for the hypothesized data transmission (col. 9, lines 1-20, FACCH decode metric); and comparing the metric against the threshold to provide an output indicating whether or not the data transmission is deemed to have been received (col. 9, lines 18-20, compare voice and FACCH metrics and better metric selected for generating the received signal quality estimate). Servais further teaches a processor (controller 51 and memory element 49, see fig. 2).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Art Unit: 2618

5. Claims 24 -55 with at least claims 24, 29, 37, 46 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Molnar (7,035,359) in view of Servais et al (6,141,388).

Regarding claim 24, Molnar teaches a method for receiving data in a wireless communication system, comprising demodulating received data symbols to provide recovered symbols (step 905: demodulate and decode, fig. 9); processing the recovered symbols to provide decoded data (step 905: demodulate and decode, fig. 9); processing the decoded data to provide re-modulated symbols (step 910: re-encode and re-modulate, fig. 9) (see fig. 9, col. 12, lines 10-42).

Molnar does not teach detecting the received data symbols and the re-modulated symbols to provide a detector output. Molnar, however, teaches the re-encoded and re-modulated step (i.e., re-modulating) is for the purpose of providing a reconstructed *transmitted signal* (col. 12, lines 17-22).

Servais teaches detecting the received data symbols (i.e., received bits, fig. 3) and the re-modulated symbols (i.e., *transmitted bits*, fig. 3) to provide a detector output (i.e., the output of the calculate actual channel BER). It is noted that the *re-modulated symbols* equates to the *transmitted signal* as taught by Molnar above.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Servais into the teachings of Molnar in order to provide improved estimates of bit error rate with reduce computational load and which provide such estimates over a range of error rates (col. 4, lines 4-7).

Claims 29, 37 and 50 have similar claimed limitations as claim 24. Therefore, the rejection of claim 24 is also applied to claims 29, 37 and 50.

Art Unit: 2618

Regarding claim 46, Molnar teaches a method for receiving data in a wireless communication system, comprising demodulating received data symbols to provide recovered symbols (step 905: demodulate and decode, fig. 9); processing the recovered symbols to provide decoded data (step 905: demodulate and decode, fig. 9); processing the decoded data to provide re-modulated symbols (step 910: re-encode and re-modulate, fig. 9) (see fig. 9, col. 12, lines 10-42).

Molnar does not teach detecting the received data symbols and the re-modulated symbols to provide a detector output. Molnar, however, teaches the re-encoded and re-modulated step (i.e., re-modulating) is for the purpose of providing a reconstructed *transmitted signal* (col. 12, lines 17-22).

Servais teaches detecting the received data symbols (i.e., received bits, fig. 3) and the re-modulated symbols (i.e., *transmitted bits*, fig. 3) to provide a detector output (i.e., the output of the calculate actual channel BER). It is noted that the *re-modulated symbols* equates to the *transmitted signal* as taught by Molnar above. Servais further teaches a processor (controller 51 and memory element 49, see fig. 2).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize the teachings of Servais into the teachings of Molnar in order to provide improved estimates of bit error rate with reduce computational load and which provide such estimates over a range of error rates (col. 4, lines 4-7).

Conclusion

6. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to the New Central Fax number:

(571) 273-8300, (for Technology Center 2600 only)

Hand deliveries must be made to Customer Service Window,
Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tony Thuan Nguyen whose telephone number is (571) 272-7895. The examiner can normally be reached on Monday-Friday from 9:30 AM to 6:00 PM.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Tony T. Nguyen/
Primary Examiner
Art Unit 2618